

Attorney Docket No.: J6852(C)
Serial No.: 10/645,576
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BRIEF FOR APPELLANT

Sir:

This is a Brief on Appellant's Appeal from the Examiner's Final Rejection concerning the above-identified application. The Commissioner is hereby authorized to charge any additional fees, which may be required to our deposit account No. 12-1155, including all required fees under: 37 C.F.R. §1.16; 37 C.F.R. §1.17; 37 C.F.R. §1.18.

BRIEF FOR APPELLANT

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I. REAL PARTY IN INTEREST

The Real Party in Interest in this Appeal is Unilever Home & Personal Care, USA, Division of Conopco, Inc. and a corporation of the State of New York.

II. RELATED APPEALS AND INTERFERENCES

Neither the Appellants, their legal representatives nor the Assignee are aware of any other Appeals or Interferences relating to the present Appeal.

III. STATUS OF CLAIMS

This Appeal is taken from the Final Rejection of claims 1 and 4-9, the pending claims in the application. A copy of the appealed claims is attached to this Brief as an Appendix.

IV. STATUS OF AMENDMENTS

A Reply after Final was made on May 9, 2006, and no Amendments after the Final Rejection were present therein. The Amendment pursuant to 37 CFR §1.111 made on October 26, 2005 was entered by the Examiner.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention set forth in the claims on appeal is directed to a process for incorporating ZnO particles in a cosmetic composition comprised of solid asymmetric particles where the process comprises the steps of -melting asymmetric particles to form melted fatty acid; -adding un-coated ZnO particles to the melted fatty acid to form a mixture of ZnO and fatty acid, wherein the ZnO is added in an amount of about 1% to about 4% by weight; -heating the mixture to a temperature of less than about 80°C for about 5 to 10 minutes; -cooling the mixture to quench any reaction between the ZnO and fatty acid.

By the presently claimed invention, therefore, a superior method has been developed that allows for the production of vanishing creams and vanishing cream cosmetic compositions that not only maintain the unique sensory characteristics of vanishing creams but also provides a cost effective process to incorporate and disperse zinc oxide particles as an effective sunscreen.

In the Specification, the portion from pages 1-3 is background. The phraseology used in claim 1, the independent claim, and claims 4-9, the dependent claims being considered on the merits, may be found, among other places, on pages 4-19 of the specification as

originally filed. Beginning at page 21, working examples and experiments illustrate the unexpected and superior properties obtained when making the composition of this invention.

VI. GROUNDS OF THE REJECTION TO BE REVIEWED ON APPEAL

The issues raised in this appeal are primarily ones of fact and of the type normally encountered in connection with rejections made under 35 USC § 103. In particular, the issues is as follows:

I. Would one of ordinary skill in the art, upon reading Mitchnick et al. (U.S. Patent No. 5,441,726, hereinafter, '726) in view of Galley et al. (U.S. Patent No. 5,609,852, hereinafter, '852) and Halls (U.S. Patent No. 6,267,949, hereinafter, '949) find that claims 1 and 4-9 are obvious under 35 USC §103?

VII. APPELLANT'S ARGUMENTS

Appellants would like the record to reflect that they have not received a response to the Reply filed under 37 CFR §1.116, which was mailed on May 9, 2006. Therefore, this Brief is being prepared without Appellants having the benefit of any comments normally set forth on an Advisory Action.

I. Rejection Under 35 USC §103

The Examiner has finally rejected claims 1 and 4-9 under 35 USC §103 as being unpatentable over Mitchnick et al., U.S. Patent No. 5,441,726 (hereinafter, '726) in view of Galley, U.S. Patent No. 5,609,852 (hereinafter, '852) and Halls, U.S. Patent No. 6,267,949 (hereinafter, 949). In the rejection, the Examiner maintains, in summary, that the '726 reference discloses a creamy foundation composition that is prepared by mixing components in a manner suggested in column 13 of the patent at lines 7-28. Particularly, the Examiner relies on what is set forth in the '726 patent in the above defined column and lines and mentions that zinc oxide is dispersed in a solution of components 7-10 and heated to 75°C. The Examiner further mentions that components 1-6 (which contain 5% by wt. stearic acid) are mixed and heated to 80°C to form a solution which is then added to the solution containing zinc oxide to produce an emulsion. The Examiner finally states that the emulsion is cooled under stirring to 50°C and a final perfume ingredient is added.

In addition to the above, the Examiner admits that the '726 reference does not expressly teach heating a mixture of zinc oxide particles and stearic acid to a temperature of about 80°C for about 5 to about 10 minutes and that the '726 reference does not expressly disclose the addition of zinc oxide in an amount of about 1% to about 4% by weight of the cosmetic composition.

Nevertheless, in an attempt to cure the vast deficiencies of the '726 reference, the Examiner relies on the '852 reference which merely describes a sunscreen composition having titanium dioxide particles that have a dye lake precipitated onto their surface in a dye lake-titanium dioxide ratio of between 10:90 and 80:20.

The '949 reference is mentioned in the rejection maintained but not commented on by the Examiner. The '949 reference merely discloses a sunscreen formulation having zinc oxide and at least one metal hydroxy stearate in a synergistically effective amount. In view of the above, the Examiner believes that the rejection made under 35 USC §103 is warranted and should be maintained.

Notwithstanding the Examiner's apparent position to the contrary, it is the Appellants' position that the presently claimed invention is patentably distinguishable from the above-described for at least the following reasons.

As already made of record, the present invention is directed to a process for incorporating zinc oxide particles in a cosmetic composition comprised of solid asymmetric particles, comprising:

melting the solid asymmetric particles to form melted fatty acid;
adding un-coated zinc oxide particles to the melted fatty acid to form a mixture of zinc oxide and fatty acid;
heating the mixture to a temperature of less than about 80°C for about 5-10 minutes; and
cooling the mixture to a temperature of about 50°C, thereby quenching any reaction between the zinc oxide and the fatty acid.

The invention of claim 1 is further defined by the dependent claims which claim, among other things, the zinc oxide particle size, that the solid asymmetric particles are comprised of stearic acid, that the solid asymmetric particles comprise about 10 to about 25% by weight of the composition, the specific heating temperature, and the conversion of the zinc oxide and fatty acid being controlled to a conversion of about 5% to about 10% of the zinc oxide.

As set forth in the present invention, zinc oxide is added to melted fatty acid. Moreover, zinc oxide is added to melted fatty acid leading to the formation of a zinc stearate shell on a zinc oxide nano particle. The formation of the shell inhibits further reactions and allows for excellent dispersion within the cosmetic composition.

In contrast, and as set forth in the '726 reference, titanium oxide, talc, coloring pigment, and zinc oxide rods are pulverized. The resulting pulverized mixture is then dispersed in a solution having purified water, antiseptic, triethanolamine, and sorbitol. The resulting

dispersion is heated to 75°C. A subsequent mixture of stearic acid, lipophilic glycerol monostearate, cetostearyl alcohol, propylene glycol monolaureate, squalane, and olive oil is then made and heated to 80°C to form a solution. The two solutions are combined and stirred to form an emulsion which is cooled to 50°C.

Certainly, zinc oxide is not added to a fatty acid comprising component first but to aqueous components. When a second component comprising stearic acid is added, no controlled contact (if any contact at all) will be made between the zinc oxide and fatty acid. Moreover, it is not clear from the '726 reference what the temperature of the emulsion is after the aqueous components and oily components are combined. Furthermore, there is no teaching whatsoever in the '726 reference that even remotely suggests the time required to heat the mixture having fatty acid and zinc oxide. Again, and as already made of record, the present invention is patentably distinguishable over the '726 reference since the claimed invention is directed to a method for preparing a cosmetic composition comprising solid asymmetric particles, the method having a step where a mixture of zinc oxide and fatty acid is heated to a temperature of less than 80°C and the heating time is between 5 and 10 minutes. The addition of zinc oxide is at an amount such that about 1 to about 4% by weight of the cosmetic composition prepared comprises zinc oxide. In fact, the composition made in the '726 reference is a creamy foundation, and such a composition would not be formed with the solid asymmetric particles defined according to the present invention.

In an attempt to cure the vast deficiencies of the '726 reference, the Examiner relies on the '852 reference which merely describes sunscreen having a dye lake precipitated onto its surface. The '949 reference is merely directed to a formulation of zinc oxide and at

least one metal hydroxystearate in a synergistically effective amount. The sunscreen composition of the '949 reference is partly predicated on the unexpected discovery that when pigment grade zinc oxide is combined with magnesium aluminum hydroxystearate, the resulting sunscreen formulation does not retain the expected whiteness or pigmentation after application onto the skin. Secondly, the invention is partly predicated on the discovery that there appears to be synergistic enhancement of SBF rating provided by a sunscreen formulation containing zinc oxide and a metal hydroxy stearate. There is no teaching whatsoever in the '949 reference that even remotely suggests that solid asymmetric particles may be melted and combined with zinc oxide to thereby produce a mixture of zinc oxide and fatty acid.

In view of the above, it is clear that all the important and critical limitations set forth in the presently claimed invention are not found in the combination of references relied on by the Examiner. Therefore, it is clear that a *prima facie* case of obviousness has not been established and that the rejection made under 35 USC §103 is improper and must be withdrawn.

VIII. CONCLUSION

Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's final rejection of claims 1 and 4-9, and pass such claims to issue.

IX. CLAIMS APPENDIX

1. (original) A process for incorporating ZnO particles in a cosmetic composition comprised of solid asymmetric particles, comprising:

Melting said solid asymmetric particles to form melted fatty acid;

Adding un-coated ZnO particles to said melted fatty acid to form a mixture of ZnO and fatty acid;

Heating said mixture to a temperature of less than about 80°C for about 5 to about 10 minutes;

Cooling said to a temperature of about 50°C, thereby quenching any reaction between said ZnO and said fatty acid.

2. 2-3 (cancelled)
4. (original) The process according to claim 1, wherein said ZnO has a particle size diameter of less than about 500 nm.
5. (original) The process according to claim 1, wherein said ZnO has a particle size diameter of less than about 200 nm.

6. (original)The process according to claim 1, wherein said solid asymmetric particles are comprised of stearic acid.
7. (original)The process of claim 1, wherein said solid asymmetric particles comprise about 10 % to about 25 % by weight of said composition.
8. (original) The process of claim 1, wherein said heating temperature is about 60°C to about 70°C.
9. (original) The process of claim 1, wherein said ZnO reacts with said fatty acid and said reaction is controlled to a conversion of about 5 % to about 10 % of said ZnO.

10-20. (canceled)

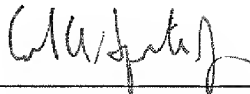
X. EVIDENCE APPENDIX

No evidence pursuant to §§ 1.130, 1.131 and/or 1.132 is/are submitted herewith.

XI. RELATED PROCEEDINGS APPENDIX

No decisions rendered by a Court or the Board have been made. Therefore, no such decisions are submitted herewith.

Respectfully submitted,



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